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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/625,014	07/22/2003	Daniel P. Rini	RTI-101XC1	8426

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EXAMINER

TAPOLCAI, WILLIAM E

ART UNIT PAPER NUMBER

3744

DATE MAILED: 08/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/625,014

Applicant(s)

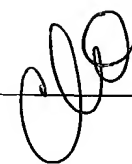
RINI ET AL.

Examiner

William E. Tapolcai

Art Unit

3744



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 July 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-95 is/are pending in the application.
- 4a) Of the above claim(s) 7, 18, 26, 56, 57, 60 and 62-95 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-17, 19-26, 34-55, 58, 59 and 61 is/are rejected.
- 7) ☒ Claim(s) 27-33 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 20040430.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 3744

1. Claims 7, 18, 26, 56, 57, 60, and 62-95 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on July 20, 2004. Applicant's explanation of the different figures as not being different species, but rather different views of the same species, is acceptable.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-6, 8, 19, 21, 22, 24, 30, 37-40, 50-55, and 58 are rejected under 35 U.S.C. 102(b) as being anticipated by Webber. Webber discloses a refrigeration system having a condenser and means 28 for flowing a first external fluid across the condenser wherein the fluid flow is parallel with the heat transfer surface of the condenser.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 23, 25, 41-47, 59, and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Webber. Webber discloses the claimed invention except for the type of fluid used for the second external fluid, the design of the extended surface features, the shape of the duct, and the direction of the fluid flow. The type of fluid used for the

Art Unit: 3744

second external fluid is a matter of obvious choice, as liquids used as condenser cooling fluids per se are well known, and no criticality or unexpected results are seen or have been disclosed for the use of liquids as the cooling fluid. Also, the design of the extended surface features is a matter of obvious design choice to one of ordinary skill in the art. The shape of the duct and the direction of the fluid flow across the condenser are also matters of obvious choice to one of ordinary skill in the art.

6. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Webber in view of Wang. Webber discloses the claimed invention except for the condenser being a liquid to vapor heat exchanger. Wang teaches a condenser 20 which is a liquid to vapor heat exchanger. It would be obvious to make the condenser of Webber a liquid to vapor heat exchanger, in view of Wang, for the purpose of providing more positive cooling.

7. Claims 48 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Webber in view of Reagan et al. Webber discloses the claimed invention except for the extended surface features being in a staggered arrangement. Reagan teaches a heat exchanger having the extended surface features in a staggered arrangement. See especially Fig. 9. It would be obvious to modify Webber so that the extended surface features are in a staggered arrangement, in view of Reagan et al, for the purpose of providing more even heat exchange.

8. Claims 9-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 9-17 recite that the compressor, evaporator,

Art Unit: 3744

expansion device, etc., are positioned substantially within the volume formed by the second surface of the condenser. However, claim 4, from which these claims depend, recites that the second surface is on the interior side of the tubular shaped condenser. This appears to mean that the second surface is inside the tubular shaped condenser, that is, inside the conduit or pipe. Thus, claims 9-11 appear to recite that the various refrigeration components are located inside the conduit or pipe that forms the condenser. This, of course, is impossible.

9. Claim 36 is indefinite because it is incomplete.

10. Claim 61 lacks a period at the end of the claim.

11. Claims 27-33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William E. Tapolcai whose telephone number is (703) 308-2640. The examiner can normally be reached on Mon. - Thurs., 6:30 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Denise L. Esquivel can be reached on (703) 308-2597. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3744

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


William E. Tapolcai
Primary Examiner
Art Unit 3744

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August 11, 2004